Closeness at a distance: caring for children through telehealth

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Accessing health services can be a difficult business where consultants or specialist treatments aren't available locally. *Sharon Levy* highlights the role of communication technology in supporting the medical services available to children and their families

An Audit Scotland report in 2011 affirmed that using advanced communications technologies in the NHS provides an opportunity to treat patients in new and innovative ways, regardless of where patients reside. It goes on to say that Telehealth – as this approach has been named – offers a potential to manage rising costs of treatment, as well as demand for care, for a wide variety of conditions, patients groups and service users.

Staff who care for neonates, children and young people, from across all acute clinical areas in Scotland, already have an opportunity to explore and use Telehealth in their day to day clinical work. Current work, undertaken by the Tele-Paediatric team at the Scottish Centre for Telehealth and Telecare (SCTT), is building on the success of previous Telehealth projects to extend the promotion, remote healthcare delivery and innovative practice beyond paediatric in-patients facilities. Billy's story illustrates the benefits Telehealth is delivering in remote and rural parts of Scotland.

The origin of the programme was a successful project between 2003 and 2006, which looked at using video conferencing to link paediatric clinical specialists from different geographical areas. Since then, we have seen further development and rapid extension of technology installation. Today, Telehealth is playing a significant role in supporting and complementing paediatric service provision across Scotland and many more professionals and service users interact in a virtual way. In doing so, they develop a unique therapeutic relationship, one which is nurtured and sustained across a digital domain.

Initially, most of our activity centred around procuring and installing systems as well as embedding remote interaction within clinical pathways, protocols and collaborative networking. Facilitating training and education of healthcare professionals, including those caring for neonates, children and young people, was also seen as a core objective.

Currently, the programme is funded by the National Delivery Plan for Specialist Children's Services and is part of NHS 24. We are advancing and piloting a number of projects which are aimed at:

- enabling primary and secondary care clinicians to consult specialists remotely, so as to avoid unnecessary referrals and travel;
- supporting clinical and educational networks to reduce professional isolation, share best practice amongst peers and enhance continued professional development efforts;

- providing access to timely decision support; and
- offering optimal care closer to home.

In addition, we continue to support a range of existing services such as Managed Clinical Networks (MCNs), remote paediatric education and remote diagnostics. We also try and 'future proof' services aimed at children and young people who were born into a technologically advanced world. To that end we monitor, track and test new developments, which may have implications for our current and future service delivery methods.

Most recently a Telehealth for Children (TfC) thinktank was established under the chairmanship of Robert Carachi of Yorkhill hospital. This new and exciting development is set to provide a platform to consider the evidence and mandate the national rollout of scalable solutions. Experience and expertise will be harnessed to explore new opportunities and exploit emerging technologies to improve the care of children in Scotland. This group will also help us continue and advance our vision and support the development of a coherent and robust future strategy for the programme.

For more information please visit http://www.sctt.scot.nhs.uk/paediatrics.html or contact Marcia Rankin, Service Development Manager NHS 24, at marcia.rankin@nhs24.scot.nhs.uk

[Breakout box]

Billy's story

Billy, a healthy and active 12-year-old boy, lives on one of the outer islands in Shetland.

Towards the end of 2009, he had an appointment to see his GP to explore reasons for a medical complaint he had for the past 4 months. Following examination, his GP spoke to surgeons at the rural general hospital in Lerwick and agreed that, due to his age, Billy would need to be seen off the Island. HIs case was referred to the paediatric surgeons in the Royal Aberdeen Children's Hospital. The surgical and gastroenterology teams at the hospital work closely together and, following discussions, it was clear that Billy would need to come down to Aberdeen for further investigations. It was not clear from his history whether the source of bleeding he reported was the small intestine or colon and, as a result, it was very difficult to plan exactly which investigations would be required.

Previously, patients such as Billy would have to be admitted to the hospital to stay for quite a few days while the clinical team worked out which investigations were required prior to them being carried out. Unlike those who live near the hospital, Billy could not be asked to attend a 30-minute outpatient consultation to plan his care. It would have taken Billy and his parents most of a day to travel to Aberdeen

and the same to return home, if travel conditions were clear. In addition, Christmas and New Year were approaching and all travel from and to the island was likely to be fully booked and heavily dependent on weather conditions.

A videoconference from the outpatient department at the Royal Aberdeen Children's Hospital to the GP's surgery, which was less than a mile from Billy's home, proved to be an ideal solution. During this remote consultation it became clear that the boy needed endoscopy and a surgical procedure, such as a laparoscopy, would not be required. It was also possible to explain in advance to the patient exactly what these tests would involve so he and his parents were prepared for the subsequent admission to Aberdeen. A number of blood tests that needed to be done were carried out by the GP a few days later.

Billy was admitted for 48 hours during which time a diagnosis was made and it was possible to start treatment immediately to bring his symptoms under control.

"Using video conferencing has made such a difference to our family," Billy's mother said. "Instead of a long journey to Aberdeen it now only takes 30 minutes for Billy to be seen."

Many thanks to Billy, his mother, Dr Bisset (consultant in Paediatrics and Paediatric Gastroenterology), and his team at RACH, for sharing their story with us.

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